

- Between 2005 and 2025 Committed Project conditions, the amount of time people spend in congestion in Alameda County will increase by more than 39 percent in the a.m. peak hour and by 57 percent in the p.m. peak hour. The time spent in congestion will decrease 9 percent during the a.m. peak hour and 12 percent during the p.m. peak hour between 2025 Committed Projects and 2025 Tier 1 conditions.
- The 2025 Committed Projects indicates that trips will take longer and average speeds will drop, but on average people will travel shorter distances than in 2005. Compared to 2005 conditions, the 2025 Committed Projects would result in a one percent increase in average trip duration for the a.m. peak hour and less than one percent increase for the p.m. peak hour; a four percent decrease in average travel speed for the a.m. and p.m. peak hours; and a two percent decrease in average trip length for the a.m. peak hour and a three percent decrease for the p.m. peak hour. These conditions would slightly improve under 2025 Tier 1 conditions.

Between 2005 and the 2025 Committed Projects, the percentage of commuters choosing transit or carpooling modes over driving alone to work would increase from 15 to 20 percent. The percentage of commuters choosing transit or carpooling modes in the 2025 Tier 1 conditions would be 20 percent. Between 2005 and the 2025 Committed Projects unlinked, transit trips in absolute numbers would increase by 43 percent (47 percent increase to 2025 Tier 1 conditions).

Total commute trips in and out of the county are shown in Figure A.5 in Appendix A for counties except San Joaquin County. The number of San Joaquin County trips coming into Alameda County is difficult to project with the model because it is not currently part of the ABAG Projections study area, and different methodologies for determining commute trips are used.

Without San Joaquin County, 72 percent of the total daily trips in Alameda County begin and end within the county lines. This is due primarily to the forecasted increase in employment opportunities within Alameda County. The remaining trips come from outside

Alameda County with Santa Clara County being the highest followed by San Francisco, Contra Costa and San Mateo counties.

The system-level performance measures in Tables 2.4 and 2.5 show that time spent in congestion and percentage of roadway system in congestion will decrease under Tier 1 conditions while the vehicle miles traveled will stay the same. Average speeds are also expected to increase slightly. The average trip length will stay the same. These results show traffic congestion will improve some under Tier 1 conditions when compared to 2025 Committed Projects.

Localized Impacts of Key Tier 1 Projects

The impacts of some key Tier 1 projects were evaluated by comparing the 2025 Tier 1 scenario to the 2025 Committed Projects scenario using a.m. and p.m. one-hour and four-hour peak-period traffic volumes. This section discusses the findings of this comparison for each improvement.

Interchange Improvements

The impacts of improvements at interchanges are primarily flow-related, and do not significantly affect regional travel patterns. The

following interchanges were evaluated for localized impacts: I-80/Gilman Avenue, I-80/Ashby Avenue, I-880/Broadway/Jackson, I-880/High Street, and the I-580/Isabel/Route 84 Interchange. In general, improvements result in operational benefits and improved interchange access in the corridors where they are located with small changes on surrounding local roadways.

The Isabel/SR 84 interchange with I-580 involves a new interchange that connects the two-lane Isabel alignment for Route 84 to I-580 and has a larger impact on the surrounding roadway because it will allow traffic to go around rather than through central Livermore. This project would increase traffic on the Isabel alignment north of Stanley Road by about 1,400 vehicles in the peak travel direction during the a.m. and p.m. peak hours, decrease traffic on I-580 west of the interchange to I-680 by about 1,000 to 1,500 vehicles, and decrease volumes on several roadways in central Livermore, especially during the p.m. peak period. Traffic volumes on Portola Avenue would decrease by about 500 to 1,000 vehicles in the peak travel direction during the a.m. and p.m. peak hours. Traffic volumes on Holmes Street would

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decrease by about 400 to 500 vehicles in the peak northbound direction during the a.m. and p.m. peak hours.

SR 92 HOV and Newark Boulevard On-Ramp

The primary result of extending the HOV lane is to provide better operational access to the HOV vehicles (including buses) that use it. The impact of extending the HOV lane on SR 92 to I-880 attracts an estimated 700 additional vehicles to the HOV lane in the a.m. peak hour (daily peak hour of traffic), of which 600 were previously in the mixed-flow lanes. Further, the introduction of the HOV access ramp attracts an additional 300 vehicles in the a.m. peak hour, as well as facilitates Dumbarton Express access.

Transit Improvements

The following transit improvements are included as Tier 1 projects: BART to Santa Clara County, BART Oakland Airport Connector, and the Telegraph Avenue/East 14th/International Boulevard Bus Rapid Transit. All of these projects are currently under environmental review or are being studied in greater detail. An update will be provided in the next update of the *Countywide Transportation Plan*.

Future Transit Conditions

System-level performance measures presented in Table 2.5 show that transit ridership for work trips in Alameda County will increase 82 percent under Committed conditions and an additional four percent under Tier 1 conditions. The number of persons choosing to drive alone, carpool or take transit will increase by 2025. The percentage of people driving alone will decrease by about five to six percent and the percentage of people taking transit will increase by the same amount. The modal shares for carpooling stay about the same.

Future Transit Plans

BART

In April 2001, Capitol Corridor rail service between Oakland and Sacramento was increased to nine daily trips, four of which provide daily service to San Jose. Connections between BART and Amtrak/Capitol Corridor service are being considered for the Oakland Coliseum and Union City BART stations.

In Alameda County, BART's rail extension program includes plans for new stations in south Fremont (Warm Springs Extension) and West Dublin/Pleasanton. The Oakland Airport Connector project would provide an enhanced transit linkage between the BART system at the Coliseum Station and Oakland International Airport. Systemwide ridership is forecast to increase 29 percent, from 99.2 million trips in fiscal year 2002 to 128.1 million in fiscal year 2011. This forecast assumes the San Francisco Airport Extension. In fiscal year 2003, the BART system will have 43 stations and 101 miles of double mainline track. BART is also assessing system expansion opportunities in the Tri-Valley area and in Oakland's Jack London Square.

In addition to the system expansion program, BART has defined a systemwide renovation program. Major elements include renovation of the A and B cars, modernizing automatic fare collection equipment, rail replacement, renovation and expansion of yards, and an escalator and elevator program. For a more detailed description of the program, refer to Appendix A. The program calls for an advanced system of automatic train control to increase the

frequency of service. Projects are already underway to increase bicycle parking at many stations.

AC Transit

AC Transit developed its Comprehensive Service Plan (CSP) in the late 1980s as a way of increasing transit usage in the East Bay. The CSP converted the AC Transit network from a primarily radial system focused on central business districts to a multi-destination route network, with several major trunklines running north-south, and other lines connecting them. The CSP recommended a two-pronged approach to operations: frequent service in high-density, urban areas and a timed-transfer system for use in lower density areas.

The first phases of the CSP were implemented in September 1990 and April 1991 in Oakland, Alameda, Piedmont, Berkeley, Emeryville and Albany. However, because of financial constraints, some route frequencies were reduced or eliminated within the first 18 months of implementation.

The CSP was not implemented in Hayward, San Leandro and the unincorporated areas of

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Alameda County. However, in FY 2000/01 AC Transit implemented major service changes in South County. A major service change is planned in Central County for FY 2002/03. Additional service enhancements associated with the increase in funding due to the passage of Measure B will be phased in between 2001 and 2005.

As a result of changes in population densities in AC Transit's service district, the Transbay CSP has been completed and the first phase of service changes were implemented in June 1998, affecting the Southern Alameda County Transbay service. A new Transbay route (Line SB) was added to serve Fremont, Newark, Union City and San Francisco, and the number of trips was increased on Line S and SA (formerly SW).

AC Transit is considering alternatives designed to provide preferential treatment for public transit vehicles in primary service corridors in order to improve service and reduce emissions. Alternatives being considered include clean fuel or electric vehicles, light rail and relatively low-cost improvements such as installing signal priority devices to reduce delay at intersections.

AC Transit has recently completed Phase One of the Berkeley-Oakland-San Leandro Major Investment Study, which examined operational improvements in their most heavily patronized transit corridor. Phase 2 of the study will include preliminary engineering and environmental work for a Bus Rapid Transit project along Telegraph Avenue, East 14th Street and International Boulevard.

LAVTA

In July 2000, LAVTA expanded its bus fleet for its Prime Time commuter routes, which serve Sunnyvale and Walnut Creek. The current fixed-route fleet comprises 68 vehicles with a fiscal year 2000-01 operating budget of \$8.4 million. Ridership has doubled in the past five years, with an estimated 2.1 million unlinked trips in FY 2000-01.

Over the next five years (2001-2006), LAVTA will construct a new satellite operations facility, install automatic vehicle locators (AVL), improve express bus service, expand evening and weekend service, and offer more employer shuttles.

In May 1997, BART opened its new Dublin/Pleasanton station. In response, LAVTA implemented its new Pleasanton/Dublin fixed-route network and began midday demand-response service called DART (Direct Access Responsive Transit). DART was developed to serve areas where fixed-route service was not viable.

After only five months the performance of both systems increased dramatically. In 1997, weekday ridership on the fixed-route system during the fourth quarter increased by more than 40 percent over 1996 figures. Similar trends were seen on DART. It was anticipated that after three months of service the DART system would be carrying about 3.5 passengers per hour. However, as of June 2001, the system average was six to seven passengers per hour. LAVTA has added another vehicle to accommodate demand. The DART service will continue to be refined in the way it provides service to areas where all-day fixed-routes are not feasible.

In January 1998, eight months after the Dublin/Pleasanton BART station opened, LAVTA inaugurated its Livermore “multimodal” transit center. Aside from serving

as a functional and physical hub for fixed-route local bus service, the transit center also is a station for Greyhound intercity buses. The center connects directly to commuter trains via its rail platform, and has over-the-counter customer service for information and ticket sales.

A year after the transit center opened, the Altamont Commuter Express (ACE) train began service between Stockton and San José in January 1999, serving three stops in the LAVTA coverage area. When this service began, LAVTA implemented two shuttle routes connecting all ACE trains. The Pleasanton shuttle connects with the BART station and major employers such as the Hacienda business park, while the Livermore shuttle serves the Lawrence Livermore and Sandia laboratories.

Water Transit

In 1999, the California Legislature created the San Francisco Bay Area Water Transit Authority, a new regional agency. The enabling legislation, Chapter 1011 of the Statutes of 1999, authorizes the WTA to develop and adopt a long-range plan for operating a comprehensive water transit system in San Francisco Bay. The bill also specified the organizational structure

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for the WTA and the technical studies that need to be conducted. In 2000, the California Legislature appropriated \$12 million to fund the environmental impact reports and design functions specified in the enabling legislation (Chapter 656, Section 12(b) 2, Statutes of 2000). The WTA is in the process of preparing these studies and anticipates completing them by Summer 2003.

Ferry service currently is provided by Alameda Harbor Bay Ferry and the Alameda-Oakland Ferry. The Alameda-Oakland Ferry system added another vessel in November 2001. This raises the total fleet count to four for both systems.

Future Freight Movements

Truck traffic generated by the Port of Oakland represents two percent of all truck travel in the region. The volume of containers served by the Port of Oakland is expected to increase more than 100 percent between 1996 and 2010. This growth level will mean more traffic from the port using I-880, I-580, I-238 and I-80. The Port of Oakland is constructing a Joint-Use Intermodal Container Transfer Facility to enhance the port's competitiveness in attracting

new intermodal freight traffic. The project includes construction of a rail yard facility within the Port of Oakland for loading and unloading marine containers onto double-stack rail cars. This enhanced intermodal transfer facility is designed for shared use by all railroads serving the Port of Oakland. It will reduce current levels of truck traffic on I-80, between the Port and the BNSF intermodal yard in Richmond.

Several critical truck routes will be affected by the increase in midday traffic congestion. Excess demand will extend the normal peak period affecting midday freight movements at the Altamont Pass, I-580, I-238 from I-580 to I-880, I-880 between I-238 and the Port of Oakland and I-80.

CONCLUSIONS

In 1990, 14 percent of the MTS roadway system was congested during afternoon peak periods. Forecasts show that 39 percent of the roadway system will be congested by 2025 unless additional investments are made. The 2025 Committed Projects and Tier 1 investment program focuses on maintenance and

management of the transportation system with limited strategic expansion. However, levels of congestion predicted by transportation models do not take into account the effects of projects designed to squeeze more capacity out of the transportation system. The effects of operational and system management projects or the potential decrease in the duration of congestion in the peak period must also be considered.

The county's location in the region plays a role in contributing to increasing levels of congestion. Alameda County's major facilities—such as I-680, I-880, I-580 and I-80—function as regional routes for people traveling through Alameda County to jobs or housing in Santa Clara, San Francisco, Contra Costa and San Joaquin counties.

Because of limited funding, it will be more difficult to make transportation investments when they are needed—for example, funding may come after a problem has grown more expensive to address. Roadway maintenance needs will require a significant investment, particularly in the older communities in North County. During the 25-year timeframe of the Plan, a funding shortfall of \$278 million is

anticipated for roadway maintenance unless new revenue sources are approved.

Concerns over air quality and traffic congestion suggest the need for increased transit service; however, current funding for transit operations and capital investment is inadequate, so increases in service will likely have to wait for new sources of funding.

Alameda County's role as a gateway to international trade will be jeopardized unless congestion on the highway system can be confined to peak periods. Efforts to improve critical freight routes through targeted investment can maintain or improve the economic vitality of Alameda County by preserving freight movements during most hours of the day.

Without additional funding and improved system management, the countywide system cannot meet the goals and requirements outlined in Chapter 1, Table 1.1. But before the CMA can seek additional taxes or fees, it must demonstrate that every effort has been made to stretch existing revenues and make the most productive use of existing facilities.

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